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EXAMINER

RUSSELL, WANDA Z

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/644,932	Applicant(s) GAUTHIER ET AL.	
	Examiner WANDA Z. RUSSELL	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24,27,30-32 and 34-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24,27,30-32 and 34-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-24, 27, 30-32, and 34-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson et al. (U.S. Patent 5,513,246), in view of Bernstein et al. (U.S. Patent 6,574,203 B2).

For **claim 1**, Jonsson et al. teach a device (combination of 122, 124, 125, 127, and 130 in Fig. 3), for integration into a base station (col. 3, lines 3-4) of a type that includes at least one radio-transceiver (124, 125 -Fig. 3. It is obvious that transmitter and receiver can be combined as transceiver for the functions) for receiving and transmitting radio communications (Fig. 3) to a plurality of subscriber stations (mobile stations, col. 2, lines 33); the device comprising:

an input device (127-Fig. 3) operable to be coupled to the at least one radio-transceiver (125-Fig. 3) for receiving a handoff signal (an alarm is generated to initiate the handoff procedure, refer to col. 11, lines 39-40 & 34-40. The alarm is the handoff signal) from the at least one radio-transceiver at a first mode respective to a first coverage area of the communication system (circle within V –Fig. 1e. Here first mode is respective to a first coverage area that is circle within V. See more below regarding Bernstein);

an output device (122-Fig. 3) for delivering the handoff signal (the alarm is the handoff signal, refer to col. 11, lines 39-40) at a second mode respective to a second coverage area (circle within VII –Fig. 1e. Here second mode is respective to a second coverage area that is circle within VII. See more below regarding Bernstein);

a converter (microprocessor controller 130-Fig. 3) coupled to said input device and said output device (Fig. 3) for translating the handoff signal from the first mode into the second mode (signal strength values are sent to the microprocessor controller 130, col. 7, lines 40-41, and the microprocessor controller 130 controls the mobile station activity and the base station communication. Decisions by the microprocessor controller 130 are made in accordance with received messages and measurements that are made, refer to col. 8, lines 18-23. The signal strength values are related to covered areas); the second mode handoff signal for indicating to a subscriber station (mobile station, col. 2, lines 33) operating in the second mode within both of the coverage areas (B C D –Fig. 1e) to switch from the second mode to the first mode so that the subscriber station operates in the first mode (S17-S19-S21-S25 -Fig. 5a. Handover –switch-performed).

Furthermore, along with claim 4, the examiner provides second rejection for claim1 regarding the interpretation that the first mode is a first frequency and the second mode is a second frequency different from said first frequency:

Jonsson et al. fail to specifically teach that the first mode is a first frequency and the second mode is a second frequency different from said first frequency, although this element is not described in the claim, and only described in the specification. Bernstein

et al. teach said first mode is a first frequency (current frequency, col. 3, line 23) and said second mode is a second frequency (new frequency, col. 3, line 23).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jonsson et al. with Bernstein et al. to obtain the invention as specified, for handover process from first frequency to second frequency.

For **claim 2**, Jonsson et al. and Bernstein et al. teach everything claimed as applied above (see claim 1). In addition, Jonsson et al. teach the device according to claim 1 wherein said first coverage area and said second coverage area of said system are each based on a respective protocol selected from the group consisting of CDMA, TDMA, GSM, GPRS, AMPS and FDMA (col. 5, lines 47-55).

For **claim 3**, Jonsson et al. and Bernstein et al. teach everything claimed as applied above (see claim 1). In addition, Jonsson et al. teach the device according to claim 2 wherein said protocols respective to said coverage areas are different (col. 5, lines 47-55).

For **claim 4**, Jonsson et al. and Bernstein et al. teach everything claimed as applied above (see claim 1). In addition, Jonsson et al. teach a conventional CDMA re-direction signal (col. 5, line 55).

For **claim 5**, Jonsson et al. and Bernstein et al. teach everything claimed as applied above (see claim 1 and 4). In addition, Jonsson et al. teach the device according to claim 4 wherein said first coverage area and said second coverage area are served by respective CDMA base stations (col. 5, line 55 & 40-55).

For **claim 6**, Jonsson et al. and Bernstein et al. teach everything claimed as applied above (see claim 1). In addition, Jonsson et al. teach the device according to claim 1 wherein said output device is operable to transmit (Fig. 3) said handoff signal to a base station power combiner (123-Fig. 3) for delivering said converted handoff signal to a base station antenna (Fig. 3) for outputting said handoff signal.

For **claim 7**, Jonsson et al. and Bernstein et al. teach everything claimed as applied above (see claim 1 and 4). In addition, Jonsson et al. teach the device according to claim 4 wherein said converter comprises a down-converter (receiver, 125-Fig. 3) operable to receive said handoff signal from said input device and for converting said handoff signal from said first frequency to an intermediate frequency (col. 7, line 45) and an up-converter (transmitter, 124-Fig. 3) for converting said intermediate frequency (col. 7, line 45) to said second frequency (the converting and handoff process is the same as described in claim 1).

For **claim 8**, Jonsson et al. and Bernstein et al. teach everything claimed as applied above (see claim 1, 4 and 7).

However, Jonsson et al. fail to specifically teach the device according to claim 7 further comprising a microcontroller operably connected to said down-converter and said up-converter such that said first frequency and said second frequency is user-selectable.

Bernstein et al. teach the device according to claim 7 further comprising a microcontroller operably connected to said down-converter and said up-converter such

that said first frequency and said second frequency is user-selectable (performed in a mobile station –that is user-selectable, col. 2, lines 34-38).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jonsson et al. with Bernstein et al. and Chang et al. to obtain the invention as specified for providing user friendly handoff.

For **claim 9**, Jonsson et al., Bernstein et al., and Chang teach everything claimed as applied above (see claim 1, 4, 7 and 8). In addition, Jonssen et al. teach generating alarms if said converter operates outside of desired specifications (col. 11, lines 31-40).

However, Jonsson et al. fail to specifically teach the device wherein said microcontroller is further operable to perform at least one of logging various conversions performed by said converter.

Bernstein et al. teach the device wherein said microcontroller is further operable to perform at least one of logging (col. 8, lines 35-39) various conversions performed by said converter.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jonsson et al. with Bernstein et al. and Chang et al. to obtain the invention as specified for keeping records of conversions.

For **claims 10-12**, they are method claims corresponding to method claims 1-3, therefore they are rejected for the same reason above.

For **claims 13-14**, they are method claims of claims 4-5, therefore they are rejected for the same reason above.

For **claim 15**, it is a method claim of claim 6, therefore it is rejected for the same reason above.

For **claim 16**, it is a method claim of claim 4, therefore it is rejected for the same reason above.

For **claims 17-20, and 21** they are system (Fig. 1e) claims including first base station (BS1 in Fig. 1e) and second base station (BS2 in Fig. 1e) corresponding to claims 1-4, and 6 respectively, therefore they are rejected for the same reason above.

For **claims 22-24**, they are system claims of claims 7-9, therefore they are rejected for the same reason above.

For **claim 27**, it is a device (Fig. 3) for use in a wireless communication system claim of claim 1, therefore it is rejected for the same reason above.

For **claim 30**, it is a base station (Fig. 3) for use in a wireless communication system (Fig. 1e) claim of claim 1, therefore it is rejected for the same reason above.

For **claim 31**, it is a base station (Fig. 3) for use in a wireless communication system (Fig. 1e) claim of claim 2, therefore it is rejected for the same reason above.

For **claim 32**, it is a base station (Fig. 3) for use in a wireless communication system (Fig. 1e) claim of claim 10, therefore it is rejected for the same reason above.

For **claim 34**, it is a combination of claims 1, 4, and 7, therefore it is rejected for the same reason above.

For **claim 35**, Jonsson et al. and Bernstein et al. teach everything claimed as applied above (see claim 1). In addition, Jonsson et al. teach a base station (Fig. 3) that incorporates the device according to claim 1.

For **claim 36**, it is a base station (Fig. 3) claim of claim 6, therefore it is rejected for the same reason above.

For **claim 37**, it is a base station (Fig. 3) claim of claim 2, therefore it is rejected for the same reason above.

For **claim 38**, it is a base station (Fig. 3) claim of claim 3, therefore it is rejected for the same reason above.

For **claim 39**, it is a base station (Fig. 3) claim of claim 2, therefore it is rejected for the same reason above.

For **claim 40**, Jonsson et al. and Bernstein et al. teach everything claimed as applied above (see claim 1, 35 and 39). In addition, Jonsson et al. teach the base station according to claim 39 wherein said base station is a first CDMA base station and said second coverage area is served by a second CDMA base station different from said first CDMA base station (BS1 and BS2 in Fig. 1e).

Response to Arguments

3. Applicant's arguments, filed 2/27/2008, have been fully considered, but they are not persuasive.

4. Applicant argues that there is no discussion of a "handoff signal" in Jonsson.

In response, the Examiner respectfully disagrees.

An alarm is generated to initiate the handoff procedure, col. 11, lines 39-40 of Jonsson. The alarm is the handoff signal.

5. Applicant argues that there is no discussion of "modes" in Jonsson.

In response, the Examiner respectfully disagrees.

First of all, claim 1 does not have the language of functional details that modes are related to frequencies, and only describes cover areas which is taught in Jonsson. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further more, Bernstein teaches that modes are related to frequencies (current and new frequencies, col. 3, line 23) which is described in last office action for claim 4 and other claims. The examiner incorporated it into claim 1 for more clarification.

6. Regarding the “intermediate frequency”, Jonsson teaches this element (col. 7 line 45). The examiner eliminated using Chang as the third reference.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WANDA Z. RUSSELL whose telephone number is (571)270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Seema S. Rao/
Supervisory Patent Examiner,
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